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World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

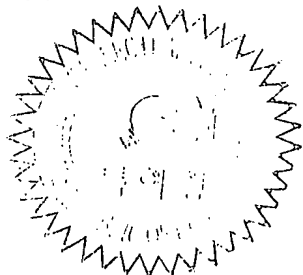


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출원 번호 : PCT/KR2004/000363
Application Number

출원 년 월 일 : 2004년 02월 21일
Date of Application FEB 21, 2004

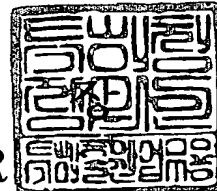
출원 인 : KIM, Kwang-Jin
Applicant(s)



2005 년 01 월 13 일

특 허 청

COMMISSIONER



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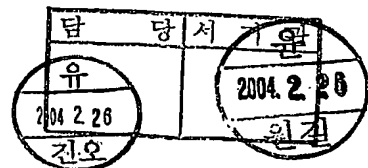
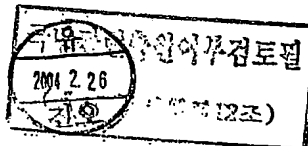
수리관청 (김경숙)

PCT/KR2004/000363

21 FEBRUARY 2004 (21.02.2004.)

International Application¹Korean Intellectual Property Office
P C T International Application

0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared Using	
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	Korean Intellectual Property Office (RO/KR)
0-7	Applicant's or agent's file reference	040212-1
I	Title of Invention	GOLF GLOVES HAVING IMPROVED FIXABILITY AND COMPACTABILITY FOR GRIP <i>OK</i>
II	Applicant	
II-1	This person is:	applicant and inventor
II-2	Applicant for	all designated States
II-4	Name (LAST, First)	KIM, Kwang-Jin
II-5	Address:	402, Geonyeong-bilra Daemyeong-dong 79, Nam-gu Daegu, 705-030 Republic of Korea <i>OK</i>
II-6	State of nationality	KR
II-7	State of residence	KR
II-8	Telephone No.	053-742-7375
II-9	Facsimile No.	053-751-7696
II-10	e-mail	samilpatent@hanmail.net
II-11	Applicant's registration No. with the Office	4-1995-087468-1



PCT REQUEST

IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	CHOI, Bong-Tae
IV-1-2	Address:	402, 4rd Beomo-building 33-2 Beomo-dong, Suseong-gu Daegu, 706010 Republic of Korea
IV-1-3	Telephone No.	053-742-7375
IV-1-4	Facsimile No.	053-751-7696
IV-1-5	e-mail	samilpatent@hanmail.net
IV-1-6	Agent's registration No.	9-1998-000583-2
V	DESIGNATIONS (regional and national patents)	
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.	
V-2	The designations under item V-2 have been irrevocably excluded in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. As to the consequences of such national law provisions in these and certain other States, see Designations in PCT-SAFE Help.	KR ok
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	13 January 2004 (13.01.2004)
VI-1-2	Number	10-2004-0002207
VI-1-3	Country	KR ok
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1
VII-1	International Searching Authority Chosen	Korean Intellectual Property Office (ISA/KR) ok

by RG

PCT REQUEST

VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	

PCT REQUEST

IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	101** [4]	-
IX-2	Description	8 -	-
IX-3	Claims	1 -	-
IX-4	Abstract	1 -	-
IX-5	Drawings	16** [6]	-
IX-7	TOTAL	127** [20]	-
	Accompanying Items *** Added by RO	paper document(s) attached	electronic file(s) attached
IX-9	Original separate power of attorney	-	OK
IX-17	PCT-SAFE physical media	-	PCT-SAFE Physical Media
IX-19	Figure of the drawings which should accompany the abstract	1 OK	
IX-20	Language of filing of the international application	English OK	
X-1	Signature of applicant, agent or common representative	(PKCS7 Digital Signature)	
X-1-1	Name (LAST, First)	CHOI, Bong-Tae	
X-1-2	Name of signatory		
X-1-3	Capacity		

by RO

by RO

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	21 FEBRUARY 2004 (21.02.2004.)
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/KR
10-6	Transmittal of search copy delayed until search fee is paid	

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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*** Added by RO
Fee calculation sheet

PCT (ANNEX - FEE CALCULATION SHEET)

(This sheet is not part of and does not count as a sheet of the international application)

0	For receiving Office use only		
0-1	International Application No.	PCT/KR 2004/000363	
0-2	Date stamp of the receiving Office	23.02.2004	
0-4	Form PCT/RO/101 (Annex) PCT Fee Calculation Sheet		
0-4-1	Prepared Using		
0-9	Applicant's or agent's file reference	040212-1	
2	Applicant	KIM, Kwang-Jin	
12	Calculation of prescribed fees	fee amount/multiplier	Total amounts (KRW)
12-1	Transmittal fee T	⇒	45000
12-2-1	Search fee S	⇒	150000
12-2-2	International search to be carried out by	KR	
12-3	International filing fee (first 30 sheets) i1	1191000	
12-4	Remaining sheets	0	
12-5	Additional amount (X) 0		
12-6	Total additional amount i2	0	
12-7	i1 + i2 = I	1191000	
12-12	Electronic Filing reduction (Full) R	-255000	
12-13	Total International filing fee (I-R) I	⇒	936000
12-14	Fee for priority document		
	Number of priority documents requested	1	
12-15	Fee per document (X) 0		
12-16	Total priority document fee: P	⇒	
12-17	TOTAL FEES PAYABLE (T+S++P)	⇒	1131000
12-18	Designation fees are not paid at this time	✓	
12-19	Mode of payment	cash	
12-20	Deposit account instructions		
	The receiving Office	Korean Intellectual Property Office (RO/KR)	
12-21	Deposit account No.		
12-22	Date	19 February 2004 (19.02.2004)	
12-23	Name and signature		

PCT POWER OF ATTORNEY

Paper Copy (NOT for submission)

0-1	PCT Power of Attorney (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)	
0-1-1	Prepared Using	
1	The undersigned applicant(s)	KIM, Kwang-Jin
1-1-1	hereby appoints (appoint) the following person	CHOI, Bong-Tae 402, 4rd Beomo-building 33-2 Beomo-dong, Suseong-gu Daegu, 706010 Republic of Korea
1-2	as	agent
1-3	to represent the undersigned before	all the competent International Authorities
1-4	in connection with the international application identified below:	
1-4-1	Title of Invention	GOLF GLOVES HAVING IMPROVED FIXABILITY AND COMPACTABILITY FOR GRIP
1-4-2	Applicant's or agent's file reference	040212
1-4-3	International application number (if already available)	
1-4-4	filed with the following Office as receiving Office	Korean Intellectual Property Office (RO/KR)
1-5	and to make or receive payments on behalf of the undersigned	
2-1	Signature of applicant, agent or common representative	
2-1-1	Name (LAST, First)	KIM, Kwang-Jin
2-1-2	Name of signatory	
2-1-3	Capacity	
3	Date	11 February 2004 (11.02.2004)

Description

GOLF GLOVES HAVING IMPROVED FIXABILITY AND COMPACTABILITY FOR GRIP

Technical Field

- [1] The present invention relates to golf gloves put on a user's hands, which grasp a grip of a golf club. More particularly, the present invention relates to golf gloves having improved fixability and compactability for a grip, in which the root portion between an index finger portion and a thumb portion and the upper portion of them are generally connected with each other and thicker than other portions of the golf glove to allow a golfer to grasp the grip of a golf club fixably and stably, and the index finger portion and the thumb portion are thicker than other portions to minimize a gap between them, so that the golfer can grasp the grip of the golf club naturally and firmly without a great grasping power.
- [2] The present invention also relates to golf gloves having improved fixability and compactability for a grip, which can provide fixability and a stable compactability with a small power when a golfer grasps a grip of a golf club, and can position a thumb and an index finger at a proper grip location.

Background Art

- [3] Conventional golf gloves have been manufactured in priority to quality of materials and feeling transmitted to the golfer's hands when the golfer grasps the golf club. Therefore, in fact, in the golf field, there has been a remarkable development in tactile sensation and quality of materials. However, as people who enjoy golf and quantity of motion are increased, fatigue of the golfer's hands is increased, and there occur various diseases such as Stenosing tenosynovitis, commonly known as 'trigger finger'(injury of a ligament of a little finger portion). Furthermore, in view of the present status of the science-oriented and up-to-date golf technology, it is needed to develop golf gloves of more improved function through a structural development besides the tactile sensation of the golf gloves. So, prior arts will be reviewed on the basis of functions of the golf gloves of the prior arts in brief.
- [4] Korean Utility Model Application No. 20-2003-0005706 discloses a golf glove having the back hand part made of elastic net. In the golf glove having the back hand part made of the elastic net, the bottom part surrounding the palm portion and the lower portion of a wrist portion is made of synthetic resin fabric of weak elasticity, and the back hand part surrounding the back of the hand and the upper portion of the wrist

is made of the elastic net. Moreover, an open part for allowing an easy wearing and a bonding part for bonding the open part are located at a region where surrounds the end portion of the wrist portion of the bottom part, have an excellent air-permeability, allow smooth movement of fingers, and remove oppressive sensation felt when the golfer wears the gloves.

- [5] Korean Utility model Application No. 20-2002-0021038 discloses a golf glove for maintaining right swing posture. The golf glove includes an interior grip grasping indication part formed at a portion of a region where four fingers excepting the thumb meet with the palm part, an exterior grip grasping indication part of a 'V' shape formed on the thumb portion and the index finger portion of the back hand part, a straight direction point formed on the root between the index portion and the middle finger portion of the back hand part, and a swing posture guide table attached on the lower end of the back hand part. The golfer grasps the grip along the interior grip grasping indication part. At this time, the exterior grip grasping indication part forms the 'V' shape between the thumb portion and the index finger portion of the back hand part, and the golfer fixes the back of the hand in such a manner to see the straight direction point of the index finger portion and the middle finger portion of the back hand part so that the golfer grasps the grip in a proper swing posture. After that, the golfer sees the swing posture guide table attached on the lower end of the back hand part, and swings the golf club to hit the ball as described in the table. Therefore, the prior art can help the golfer to always swing in the right swing posture.

- [6] Korean Patent Application No. 10-2001-0033058 discloses a golf glove for fixing a grip. The golf glove includes: a glove body having detachable fastener fixing portions, the fastener fixing portions being respectively disposed on the middle finger portion, ring finger portion, little finger portion and thumb portion of the back hand part put on a golfer's hand grasping an end portion of a grip of a golf club; an elastic band body of a predetermined width for maintaining grasping power of the three finger portions by surrounding and fixing the exterior side of the three finger portions at proper pressure, the band body having detachable fasteners mounted at both end portion thereof, the detachable fasteners being bonded to and separated from the detachable fastener fixing portions in correspondence with the detachable fastener fixing portions; and a grip band connected with the glove body. The prior art can allow the golfer to maintain grasping power to the essential portion of the grip by the grip band without regard to the golfer's physical condition by surrounding and fixing the grip band to the glove body, thereby allowing the golfer to grasp the grip in a natural condition, minimizing

instable hit and loss of driver distance, and maintaining the golfer' grasping condition as it is.

- [7] Korean Patent Application Nb. 10-1995-7001152 discloses a golf glove having marks formed on the rear surface of the golf glove corresponding to a golfer's knuckle portions, wherein the golfer can easily see the marks with eyes. The golf glove allows the golfer to rapidly know a position of his/her knuckle located at a desired position on a grip of a golf club. The marks are indicated on the golf glove, or for the marks, pieces of fabric are arranged on the golf glove to be easily shown.
- [8] Additionally, there are lots of golf gloves such as golf gloves for minimizing bending of the wrist by having a fixing rod between the back hand part and the wrist part, golf gloves having good compactability with the golfer's hands by providing various rubber bands.
- [9] As described above, golf gloves of various types having lots of functions have been developed, but a highly functional golf glove is needed, which can reduce fatigue of the golfer's hands due to long-time exercise by increasing fixability to the golf club, and allow the golfer to grasp the golf club in exact and stable condition by controlling a grip grasping posture.

Disclosure of Invention

Technical Problem

[10]

Technical Solution

- [11] Accordingly, the present invention has been made in view of the above problems, and it is an object of the present invention is to provide golf gloves having improved fixability and compactability for a grip, which can increase compactability to a grip with a small grasping power when a golfer grasps a golf club by making the thenar portion thicker than other palm portion of the golf glove, and prevent an idle rotation of the golf club by increasing compactability of the thenar portion to the grip, and which can locate the index finger portion and the thumb portion at the right positions naturally when the golfer grasps the golf club by integrating the root between the index finger portion and the thumb portion and the upper part thereof and making them thicker for the golfer's stable and exact grasping thereby minimizing fatigue due to long-time exercise and preventing improper grasping of the grip.
- [12] According to the golf glove having improved fixability and compactability for the grip, even though a beginner or a golfer, who grasps the grip of the golf club in frequent movement of the grip due to thin fingers and palm, grasps the grip, he or she

can grasp the grip tightly without strong grasping power of the middle finger, ring finger and little finger of the left hand to prevent the trigger finger. In addition, the prevent invention helps the golfer to hit a ball to a long driver distance in an exact direction in a proper swing posture, even in a condition in which the golfer does not devote his/her energies, as having good compactability to the grip of the golf club, thereby providing the golfers with stability and technical efficiency.

Advantageous Effects

[13]

Description of Drawings

[14] Further objects and advantages of the invention can be more fully understood from the following detailed description taken in conjunction with the accompanying drawings in which:

[15] FIG. 1 is a front and rear view of a preferred embodiment of the present invention;

[16] FIG. 2 is a partially sectional view of FIG. 1;

[17] FIG. 3 is a side view of the preferred embodiment of the present invention;

[18] FIG. 4 is a front and rear view showing a state in which a soft implant material is contained in a side of a filling portion;

[19] FIG. 5 is a sectional view showing the state in which the soft implant material is contained in a side of the filling portion;

[20] FIG. 6 is a perspective view showing a state in which a grip is grasped by a conventional golf glove;

[21] FIG. 7 is a perspective view of the preferred embodiment of the present invention;

[22] FIG. 8 is a perspective view showing another state in which the grip is grasped by a conventional golf glove; and

[23] FIG. 9 is a perspective view showing the preferred embodiment of the present invention.

Best Mode

[24]

Mode for Invention

[25] FIG. 1 is a front view and a rear view of a preferred embodiment of the present invention, FIG. 2 is a partially sectional view of FIG. 1, FIG. 3 is a side view of the preferred embodiment of the present invention, FIG. 4 is a front view and a rear view showing a state in which a soft implant material is contained in a side of a filling portion, FIG. 5 is a sectional view showing the state in which the soft implant material is contained in a side of the filling portion, FIG. 6 is a perspective view showing a state

in which a grip is grasped by a conventional golf glove, FIG. 7 is a perspective view of the preferred embodiment of the present invention, FIG. 8 is a perspective view showing another state in which the grip is grasped by a conventional golf glove, and FIG. 9 is a perspective view showing the preferred embodiment of the present invention.

[26] For your understanding the present invention will be described on the basis of a right-handed person. A golfer grasps the golf club with the middle finger, the ring finger and the little finger of the left hand and the middle finger and the ring finger of the right hand. However, it is difficult for a beginner to grasp the golf club in the above way, and so, the beginner grasps the golf club by devoting his/her energies to all fingers. That is, when the beginner wants to applying power to the three fingers of the left hand and the two fingers of the right hand, the power is applied from the little finger of the left hand to the whole arms and shoulders, and thereby, the beginner's whole body may get stiff and a natural swing is prevented. Therefore, the golfer can swing in a natural and stable posture and hit a ball at a long driver distance in an exact direction, only when the golfer swings in the proper grasping posture of the grip of the golf club, namely, without devoting his/her energies but with a high compactability to the grip of the golf club.

[27] A structure of the present invention will be described as follows.

[28] As shown in FIGS. 1, 2 and 3, the present invention includes: a base part 2 of a general thickness and having a middle finger portion, a ring finger portion, a little finger portion, and a palm portion and a back hand portion which are integrally formed with the three finger portions; and a filling part 10 formed to be thicker than the base part 2, the filling part 10 surrounding from the first knuckle portion of the index finger to the first knuckle portion of the thumb, the filling part 10 formed by generally integrally forming the back hand portion and the palm portion of the first knuckle portion of the thumb portion, the palm portion of the index finger portion and the thenar portion of the thumb portion when the whole palm portion is divided into two from the root portion between the index finger portion and the middle finger portion (about 1/2 of the whole palm portion).

[29] As described above, the present invention has an additional part (the filling part) added to the typical golf glove, and the additional part is formed by generally integrating the first knuckle portions 11 and 12 of the thumb portion and the index finger portion, the thenar portion 13 of the index finger portion, and a wrist portion 14.

[30] The base part 2 has a thickness made of a common material, that is, has the same

structure and material as the typical golf gloves.

- [31] As shown in FIGS. 1, 2 and 3, the filling part 10 can be made of the same material as the base part 2 in succession with the base part 2, or as shown in FIGS. 4 and 5, have a soft implant material 15 mounted thereon or surrounding the exterior surface thereof to have a predetermined thickness if needed. Alternatively, a portion of the filling part 10 is made of the soft implant material 15 having different thickness from the other portion. The soft implant material 15 may be leather, rubber, silicon or others, and the golf glove can have various thicknesses according to the golfer's golf level and taste.
- [32] Describing in a view of anthropotomy, the filling part 10 presses the finger ligament connected with the thumb and the index finger and the muscle of the palm naturally, so that the golfer can swing naturally in a relaxed condition as the golf glove provides the golfer with an effect straining the ligament and the muscle. Of course, to increase the effect, the soft implant material 15 is mounted at the filling part 10 meeting with the ligament and the muscle to increase strain sensation to the ligament and the muscle. The above effect can be discovered from a case in which lots of athletes tape the muscle and ligament line to reduce fatigue of the muscle.
- [33] A function of the present invention will be compared with that of the conventional golf gloves.
- [34] First, FIGS. 6 and 8 show states in which the golfer wears the conventional golf gloves. Generally, the golfer grasps the grip of the golf club with the middle finger, the ring finger and the little finger of the left hand and with the middle finger and the ring finger of the right hand. As shown in FIG. 6, when the golfer continuously grasps the grip of the golf club with the three weak fingers, the ligament connected with the fingers is fatigued, and thereby, the golfer may catch a chronic disease such as a trigger finger (Stenosing tenosynovitis) , and the grip G of the golf club may be moved within the golfer's palm when loosening grasping power.
- [35] Referring to FIG. 7 showing a side status of the grip after the golfer wears the glove, the thenar portion 13 of the thumb portion and the filling part 10 of the first knuckle portions 11 and 12 of the thumb portion and the index finger portion are thicker than the base part 2 so as to increase fixability to the grip G of the golf club even though the grasping power of the middle finger, the ring finger and the little finger is weak. That is, even though great power is not applied to the thumb and the index finger, compactability is applied to a portion closely touching the grip of the golf club by the filling part 10 near the first knuckle portions 11 and 12 of the thumb

portion and the index finger portion, and fixability to the grip G of the golf club can be increased by the filling part 10 of the thenar portion 13 of the thumb portion even though the grasping power of the middle finger, the ring finger and the little finger is weak.

[36] Therefore, the present invention can solve the problem of the trigger finger caused by burden of the finger ligament occurring when the golfer wears the conventional golf gloves and plays golf for a long time.

[37] FIG. 8 shows a state in which the golfer wears the conventional golf glove and grasps the grip of the golf club. When the golfer wears the conventional golf glove and grasps the grip of the golf club, the grip of the golf club may be moved due to a gap 30 generated between the root between the thumb portion and the index finger portion and the grip G of the golf club. When the golfer tries to remove the gap 30 consciously to prevent the movement of the grip, it is difficult to do an exact swing as power is applied to the index finger and the thumb.

[38] Referring to FIG. 9 showing a state in which the golfer wears the golf glove of the present invention and grasps the grip of the golf club, there is little gap by the filling part 10 between the index finger portion and the thumb portion. So, the present invention provides stability of the grip, and the root between the index finger portion and the thumb portion is naturally in a close contact with the grip even though the golfer does not try to closely contact the root portion to the grip consciously. Of course, it will be appreciated that additional soft implant material 40 having the same shape as the root between the index finger portion and the thumb portion may be inserted to increase fixability. Furthermore, the filling part 10 connected to the thenar portion 13 of the thumb portion and the wrist portion 14 provides resistance to prevent bending of the golfer's wrist, thereby maintaining the fixing condition without applying power to the wrist.

Industrial Applicability

[39] As described above, the present invention can provide stability in the structure of the human body and help the golfers to play golf in a high-level posture.

[40] While the present invention has been described with reference to the particular illustrative embodiments, it is not to be restricted by the embodiments but only by the appended claims. It is to be appreciated that those skilled in the art can change or modify the embodiments without departing from the scope and spirit of the present invention.

Sequence Listing

[41]

Claims

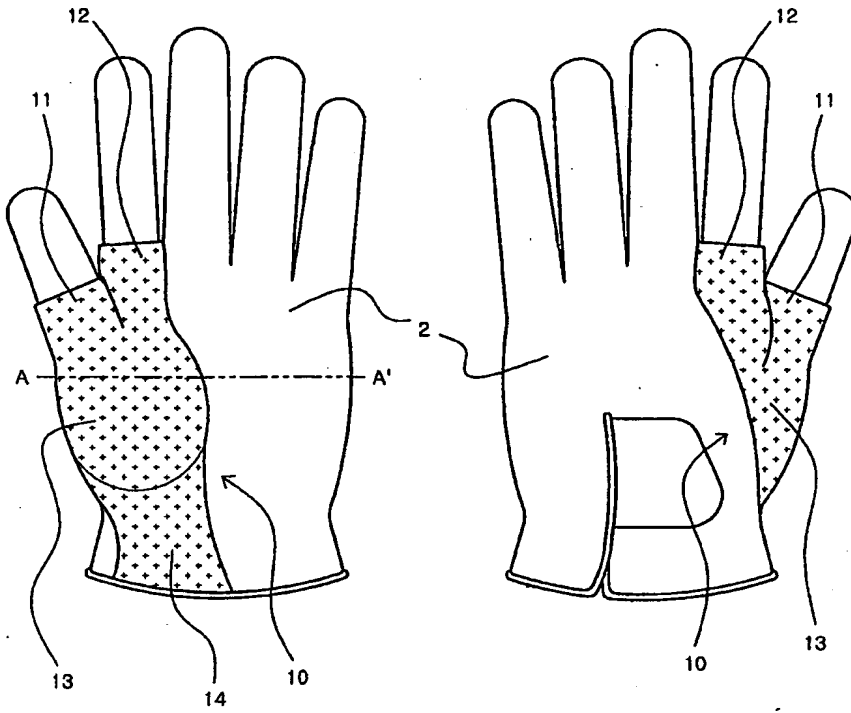
- [1] A golf glove having improved fixability and compactability for grip, the golf glove comprising:
a base part of a general thickness and having a middle finger portion, a ring finger portion, a little finger portion, and a palm portion and a back hand portion which are integrally formed with the three finger portions; and
a filling part formed to be thicker than the base part by integrally forming the root portion between the first knuckle portions of the index finger portion and the thumb portion, the back hand portions(11, 12) and the palm portions(11, 12) of the first knuckle portions, the palm portion of the index finger portion and the thenar portion of the thumb portion when the whole palm portion is divided into two from the root between the index finger portion and the middle finger portion(about 1/2 of the whole palm portion), and a wrist portion(14), to thereby strain the ligament and muscle of a golfer's hand and to increase bonding force to the grip of a golf club,.
- [2] The golf glove according to claim 1, wherein a portion of the filling part(10) has a soft implant material(15).
- [3] The golf glove according to claim 2, wherein the soft implant material(15) is made of rubber, silicon, leather, or the likes.
- [4] The golf glove according to claim 1, wherein the filling part 10 is filled with the soft implant material(15) and wrapped with it to be thicker.
- [5] The golf glove according to claim 1, wherein the filling part 10 is made of the same material as the base part(2) and thicker than the base part(2).

Abstract

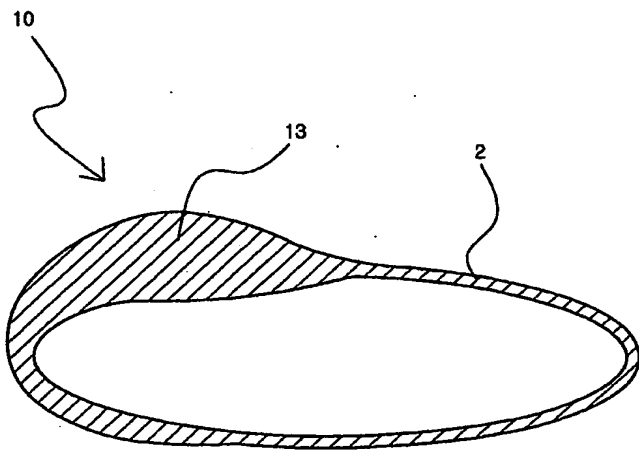
The present invention relates to golf gloves having improved fixability and compactability for a grip, in which the root between an index finger portion and a thumb portion and the upper portion of them are generally connected with each other and thicker than other portions of the golf glove to allow a golfer to grasp the grip of a golf club fixably and stably, and the index finger portion and the thumb portion are thicker than other portions to minimize a gap between them, so that the golfer can grasp the grip of the golf club naturally and firmly without a great grasping power.

1

[Fig. 1]

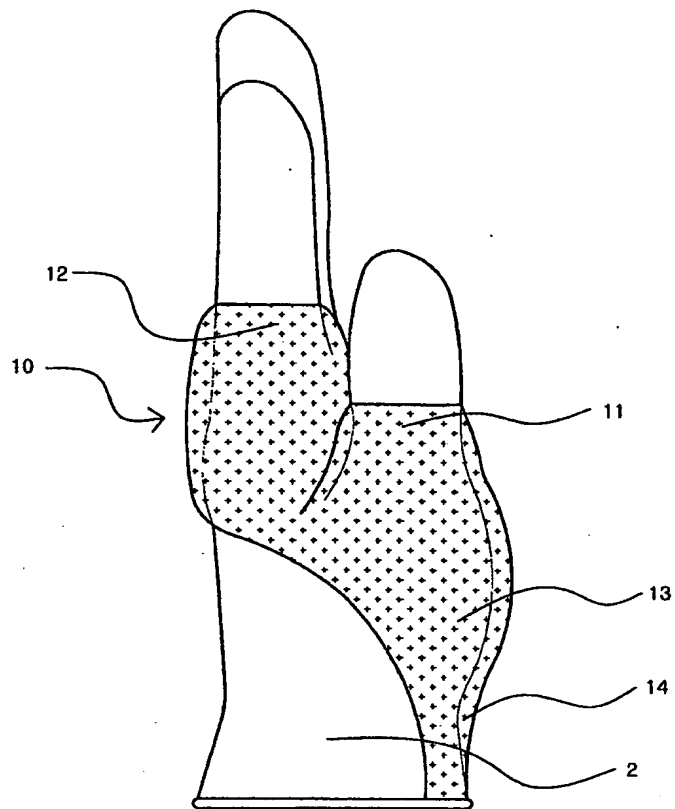


[Fig. 2]



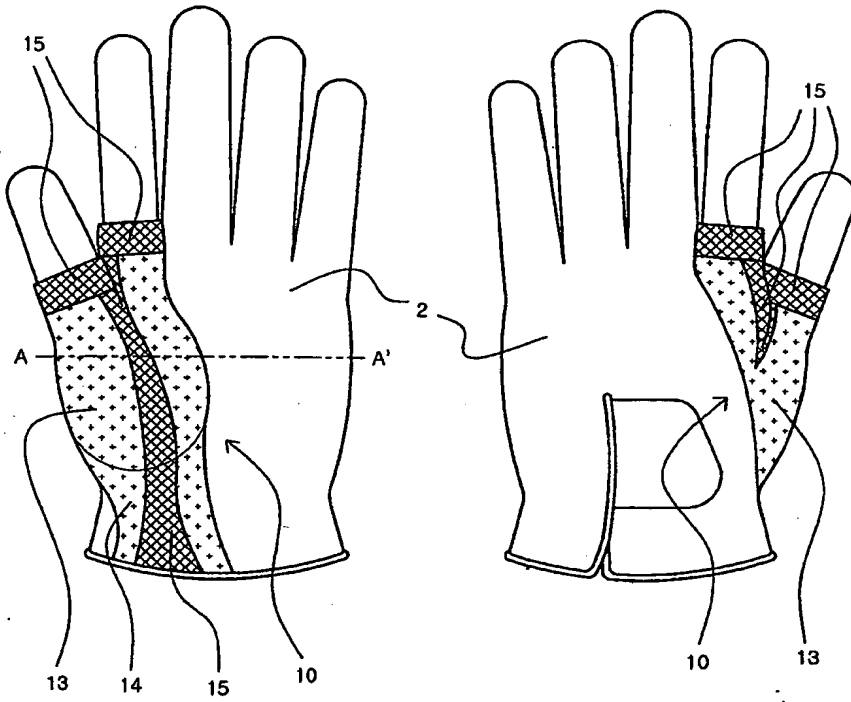
A-A' 단면도

[Fig. 3]

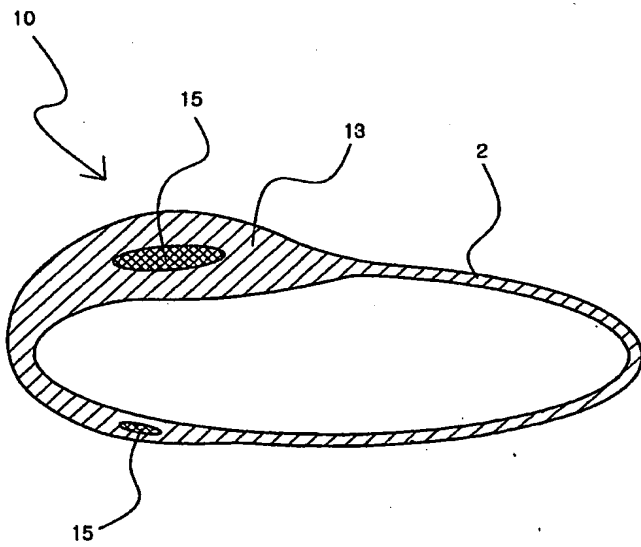


3

[Fig. 4]

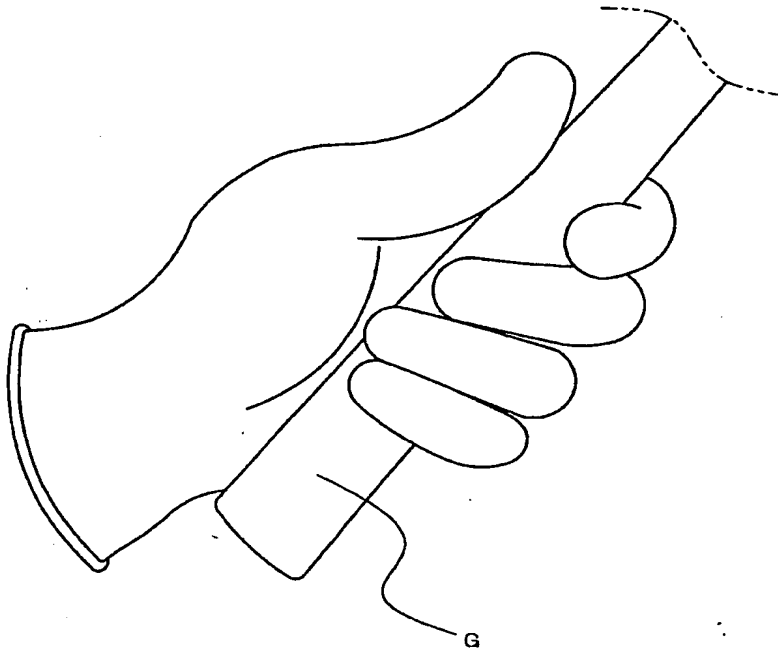


[Fig. 5]

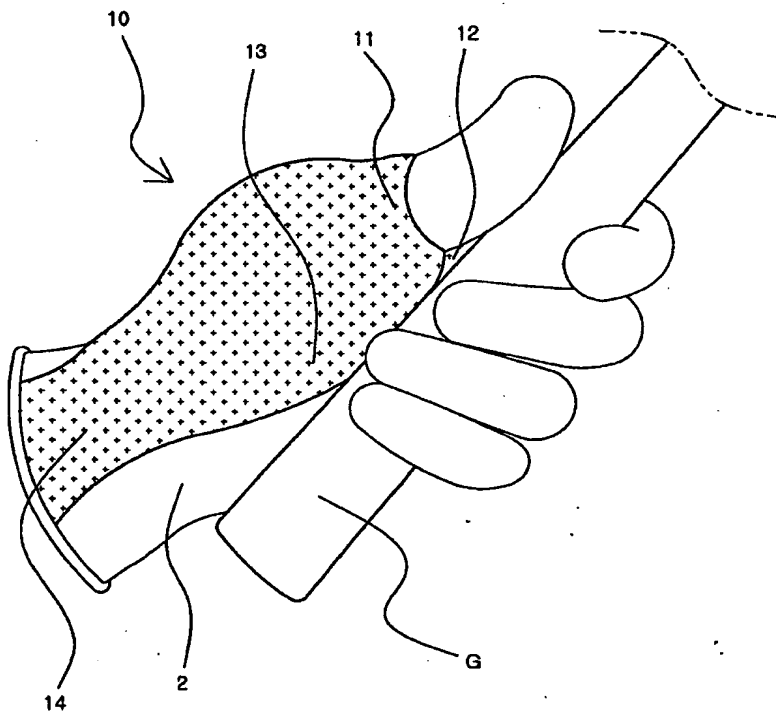


A-A' 단면도

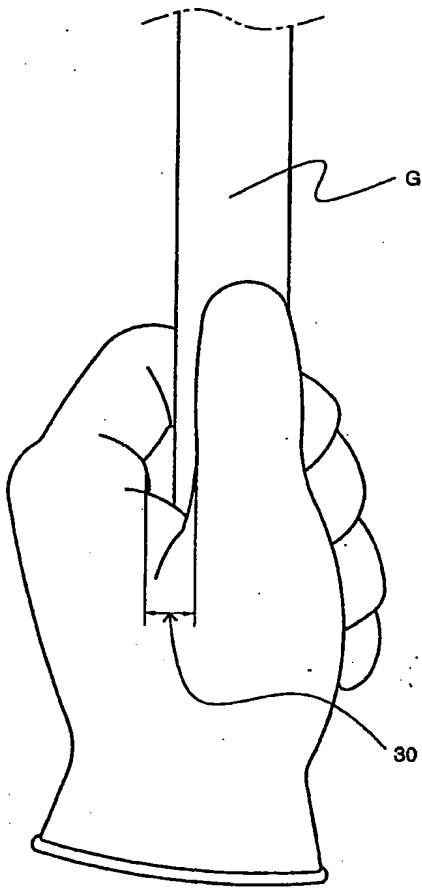
[Fig. 6]



[Fig. 7]



[Fig. 8]



[Fig. 9]

